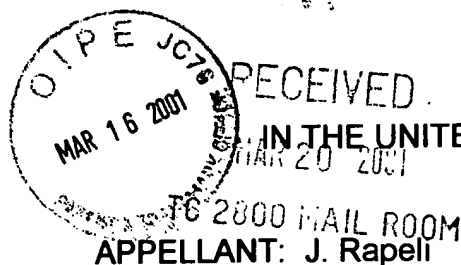


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SERIAL NO.: 08/981,676

ART UNIT: 2833

FILED: 3/23/98

EXAMINER: R. Luebke

TITLE: Keyboard and Key and Telephone Apparatus With Such A Keyboard

ATTORNEY DOCKET NO.: 442-007747-US (PAR)

Commissioner of Patents and Trademarks
Washington, D.C. 20231

REPLY BRIEF

Sir:

This Reply Brief is in reply to the Examiners Answer, paper # 25, mailed 1/23/01. The Reply Brief is being filed in triplicate.

ARGUMENT

The Examiner's Answer at page 4, part II, third sentence, states that the "key of the claims includes both the movable and stationary contacts". This construction of Appellant's claims is clearly inappropriate when considered in the light of the key 30 which is disclosed in the Specification and claimed. Appellants define the key 30 as including a center contact 31 and edge contacts 32, 33... The elements e₁, e₂, c, and r comprise circuit traces or conductors or other equivalent means on the circuit board which is part of the keyboard rather than the key 30. See Appellant's Fig. 3a and page 3 beginning at line 3 to page 4 line 14 of the Specification.

Appellant's claimed key 30 is arranged to produce a character in response to a single press of the key. It has a main contact pad 31 which is always activated when the key 30 is pressed and edge contact pads 32, 33...which are activated in addition to the main contact when the key is pressed at a point close to the edge contact. The key 30 requires separate and spaced main 31 and edge contact 32, 33...pads, which are located in the movable key of the key board.

The Examiner argues in regard to claims 10-12 that this is not so. Contrary to Appellant's clear definition of the key 30 in the Specification the Examiner alleges that the "key is seen to comprise all the parts that form the mechanical and electrical switching parts. This includes the actuation member (a button, in this case), a support, stationary contacts and movable contacts". This Examiner's definition of a keyboard key is one of the Examiner's own making and is contrary to Appellants clear description in the specification. One skilled in the art when viewing a key board containing a plurality of movable keys does not consider the conductors on the circuit board of the key board to be part of the keys, even though they interact with the keys to generate signals. It is true that the movement of the key contacts into contact with the stationary conductors of the key board is what activates the key contacts, however, that does not make the conductors of a key board part of the keys. The keys 30 are separate elements which interact with the conductors of the key board to generate characters.

In regard to claims 14, 18 and 21, the Examiner alleges that, each of Staruch's conductor fingers 105 of is a protrusion and that the end tip of the finger 105 is a pad corresponding to the pads defined in the claims. No reasonable interpretation of Appellant's Specification and claims would consider conductors on a circuit board of a key board to correspond to Appellant's contact pads on a movable key. Similarly, no one skilled in the art would consider the length of a conductor trace on such a circuit board to correspond to Appellant's disclosed and claimed protrusions. This proposed interpretation by the Examiner is clearly in error.

In regard to claims 16, 20 and 23, the Examiner argues with respect to Strauch, that because of the curve of the main contact, it will always make contact first. The Examiner is in error. In the Appellant's preferred embodiment, the added length of the main contact assures that it will make contact before the edge contacts. The Examiner states that "in Strauch, the protruding curvature of the opposing surface 62 assures that the central main contact will activate first." However, at column 4, lines 26 to 30 of Strauch it is indicated that the convex profile 62 of the actuator 64 contacts the central electrical contact 110 as well as *simultaneously* contacting the contact lines 105. Therefore the Examiner's position is clearly erroneous.

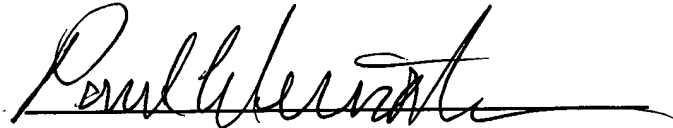
With respect to claims 6 and 9 the arrangement claimed therein would not have been obvious over Strauch because there is no teaching or suggestion in Strauch of a quadrangular key arrangement with the edge contacts located at a corner of the quadrangle. The Examiner argues that "a teaching need not come directly from the reference in order for an alternative to be considered obvious". The Examiner further argues that the "quadrangular arrangement that may have been selected is seen to have been an obvious matter of design choice". As noted in Appellant's Appeal Brief Strauch is not capable of engaging a center contact and more than one edge contact. It is more than an obvious design choice to employ a quadrangular arrangement in accordance with Appellant's claimed invention, which when using Appellant's key, permits more than one edge contact to be activated. This results in an increased number of characters which can be represented by the various key pushes. Strauch is clearly limited by the fact that his key is not capable of an edge press which would activate two edge contacts.

Conclusion

In view of the arguments presented above and those previously presented in Appellant's Appeal Brief, it is respectfully requested that the Examiner's rejections of Claims 3-6, 9-12, 14-16 and 18-23 be reversed.

Please charge our deposit account 16-1350 any additional fees necessitated by this Reply Brief. If an extension of term is deemed to be required, please consider this a request therefor, and an authorization to charge the deposit account 16-1350 for the extension fee.

Respectfully submitted,



Paul Weinstein (Reg. No. 25,382)

Perman & Green, LLP

425 Post Road

Fairfield, CT 06430

(203) 259-1800

3/14/01
Date

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service on the date shown below as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231.

March 14, 2001

Date

Shirley Murphy
Name of Person Making Deposit